



Valves, Automation & Controls

# *SERIES 66*



*HIGH PURITY  
TUBE FULL PORT  
3-PIECE BALL VALVE*

**SMITH-COOPER®**  
INTERNATIONAL

# Design & Features

## Body Material

316L Stainless Steel

## Tube Full Port Design (TFP)

Tube full port maintains unrestricted flow of media.

## 3-Piece Design

In-line serviceable swing out center section allows easy access to internal valve components without disturbing alignment of tubing.

## Floating Ball Design

Precision engineered and machined solid stainless steel ball with relief hole in the stem slot prevents build-up of cavity pressure while the valve is open.

## Stem Design

Live-loaded, bottom entry, blowout proof stem featuring packing that extends valve cycle life over conventional ball valves and is best choice for actuation.

Stem seals are live-loaded using Belleville springs to provide consistent sealing forces, reducing or eliminating the need for frequent seal adjustment.

## ISO 5211 Integral Mounting Pad

Ideal for actuation.

Centering lip feature assures precise alignment of bracket, stem and coupler.

Actuators may be retrofitted on existing Sharpe® Series 66 without disruption of line integrity.

Allows for secondary containment unit to be added when necessary.

## Tongue and Groove Design

Fully encapsulated body seals, allowing ends to be welded in-line, without time consuming and labor intensive disassembly.

Design compensates for bolt expansion and reduces the chance of external leakage.

Helps prevent seal ruptures in high pressure, cryogenic or steam applications.

## Variety of End Combinations

End connections available include; Clamp End (CE), Short Butt Weld Tube (BE) and Butt Weld Extensions (BTE) for orbital welders.

## Encapsulated Body Bolts

Heavy duty stainless steel bolting is protected from outside environment assuring valve integrity.

Ideal for wash-downs.

## Lockable Handle

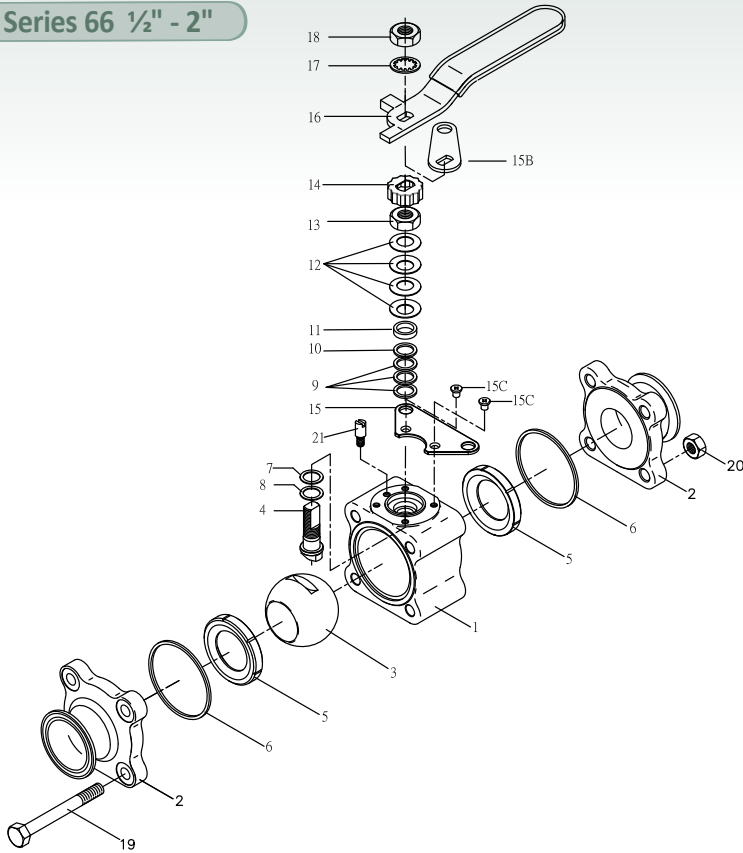
All Sharpe® Series 66 valves are supplied with lever or pipe handles and are designed to permit locking the valve in either the open or closed position.

## Traceability

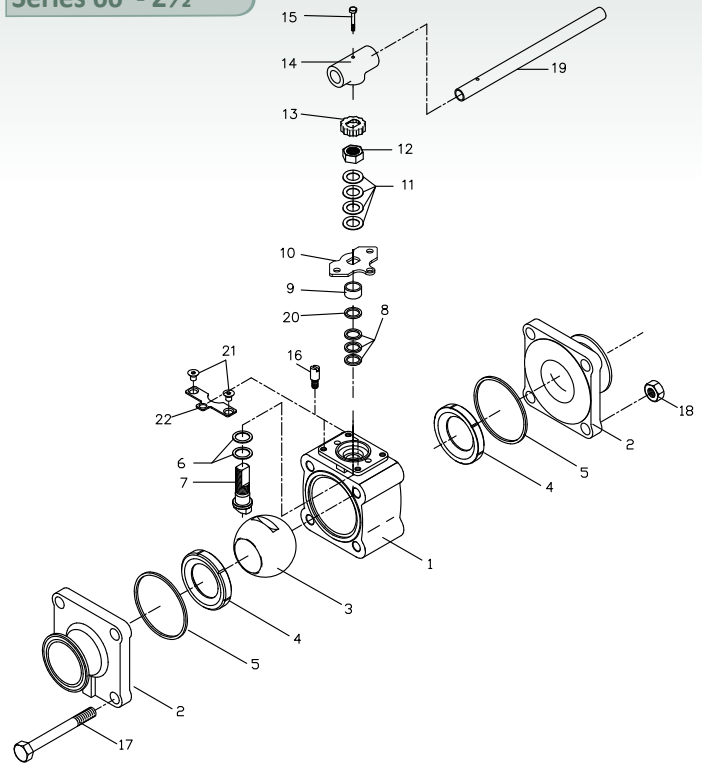
Body and end piece castings are marked with heat codes providing traceability to the chemical analysis and material test reports performed at the foundry. CMTR's (Certified Material Test Reports) are available upon request.

## Parts & Materials

Series 66 1/2" - 2"



Series 66 - 2 1/2"

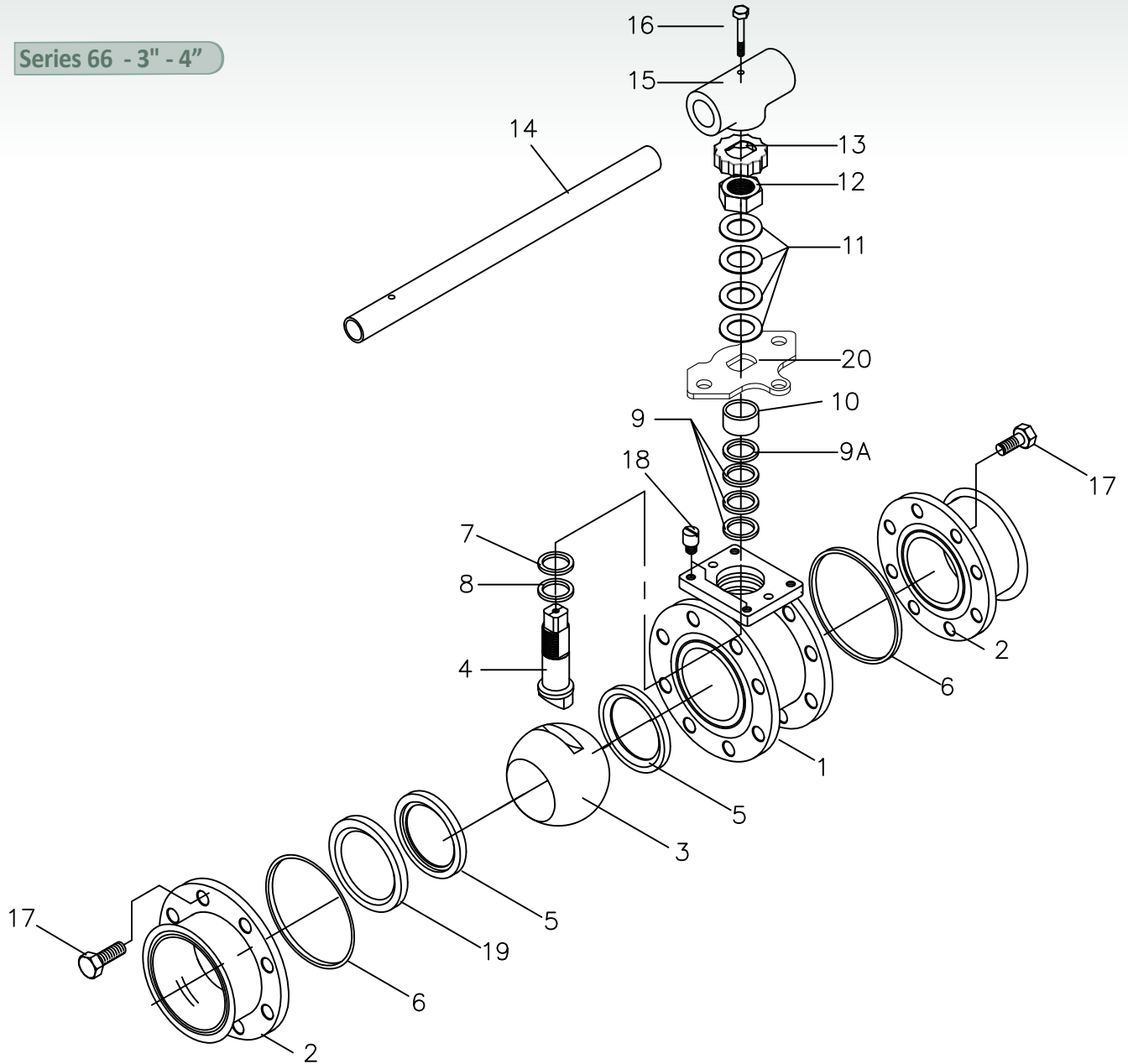


No.	Part Name	Qty	Material
1	Body	1	316L Stainless Steel ASTM A351 CF3M
2	Pipe Ends	2	316L Stainless Steel ASTM A351 CF3M
3	Ball	1	316L Stainless Steel
4	Stem	1	316L Stainless Steel
5	Seat	2	TFM®, PTFE/RTFE/Cavity Filler PTFE
6	Body Seal	2/3	PTFE, TFM®
7	Thrust Bearing	1	TFM®
8	Thrust Bearing	1	TFM®
9	Stem Packing	3	TFM®
10	Seal Protector	1	TFM®
11	Gland	1	300 Series Stainless Steel
12	Belleville Washer	4	300 Series Stainless Steel
13	Packing Nut	1	300 Series Stainless Steel
14	Lock Tab	1	300 Series Stainless Steel
15	Lower Lock Latch	1	300 Series Stainless Steel
15B	Upper Lock Latch	1	300 Series Stainless Steel
15C	Latch Bolt	2	300 Series Stainless Steel
16	Handle	1	300 Series Stainless Steel
17	Lock Washer	1	300 Series Stainless Steel
18	Handle Nut (1/4" - 2")	1	300 Series Stainless Steel
19	Body Bolts	4	304 Stainless Steel
20	Nuts	4	300 Series Stainless Steel
21	Stop Pin (1/2")*	1	300 Series Stainless Steel
		2	300 Series Stainless Steel

No.	Part Name	Qty	Material
1	Body	1	316L Stainless Steel ASTM A351 CF3M
2	Pipe Ends	2	316L Stainless Steel ASTM A351 CF3M
3	Ball	1	316L Stainless Steel
4	Stem	1	316L Stainless Steel
5	Seat	2	TFM®, PTFE/RTFE/Cavity Filler PTFE
6	Body Seal	2	PTFE, TFM®
7	Thrust Bearing	2	TFM®
8	Stem Seal	3	TFM®
9	Gland	1	300 Series Stainless Steel
10	Stopper	1	300 Series Stainless Steel
11	Belleville Washer	4	300 Series Stainless Steel
12	Packing Nut	1	300 Series Stainless Steel
13	Lock Tab	1	300 Series Stainless Steel
14	Wrench Block	1	300 Series Stainless Steel
15	Handle Bolt	1	300 Series Stainless Steel
16	Stop Pin	1	300 Series Stainless Steel
17	Body Bolts	4	304 Stainless Steel
18	Body Nuts	4	300 Series Stainless Steel
19	Handle	1	300 Series Stainless Steel
20	Gland Washer	1	300 Series Stainless Steel
21	Screw	2	304 Stainless Steel
22	Lower Stopper	1	316 Stainless Steel

# Parts & Materials

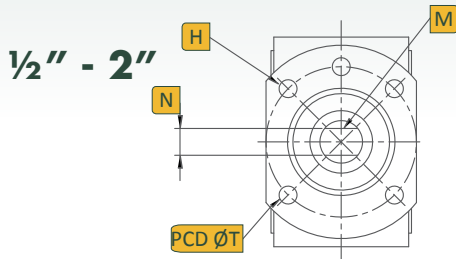
Series 66 - 3" - 4"



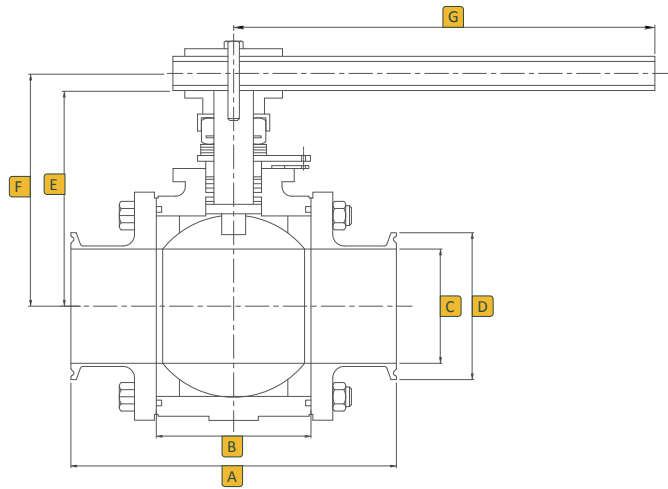
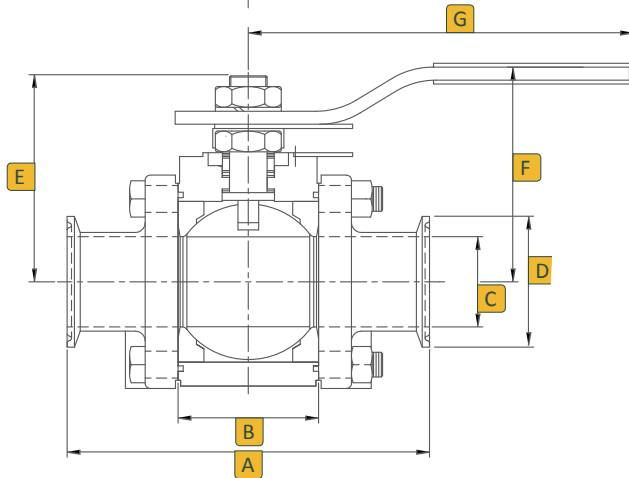
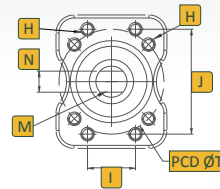
No.	Part Name	Qty	Material
1	Body	1	316L Stainless Steel ASTM A351 CF3M
2	Pipe Ends	2	316L Stainless Steel ASTM A351 CF3M
3	Ball	1	316L Stainless Steel
4	Stem	1	316L Stainless Steel
5	Seat	2	TFM®, PTFE/RTFE/Cavity Filler PTFE
6	Body Seal	2	PTFE, TFM®
7	Thrust Bearing	1	TFM®
7A	Stem Location Ring	1	300 Series Stainless Steel
8	Thrust Bearing	1	TFM®
9	Stem Packing	3	TFM®
9A	Packing Protector	1	300 Series Stainless Steel

No.	Part Name	Qty	Material
10	Gland	1	300 Series Stainless Steel
11	Belleville Washer	4	300 Series Stainless Steel
12	Packing Nut	1	300 Series Stainless Steel
13	Lock Tab	1	300 Series Stainless Steel
14	Handle	1	300 Series Stainless Steel
15	Wrench Block	1	300 Series Stainless Steel
16	Hex Head Bolt	1	300 Series Stainless Steel
17	Body Bolts	16	304 Stainless Steel
18	Stop Pin	1	300 Series Stainless Steel
19	Seat Retainer	1	300 Series Stainless Steel
20	Stopper	1	300 Series Stainless Steel

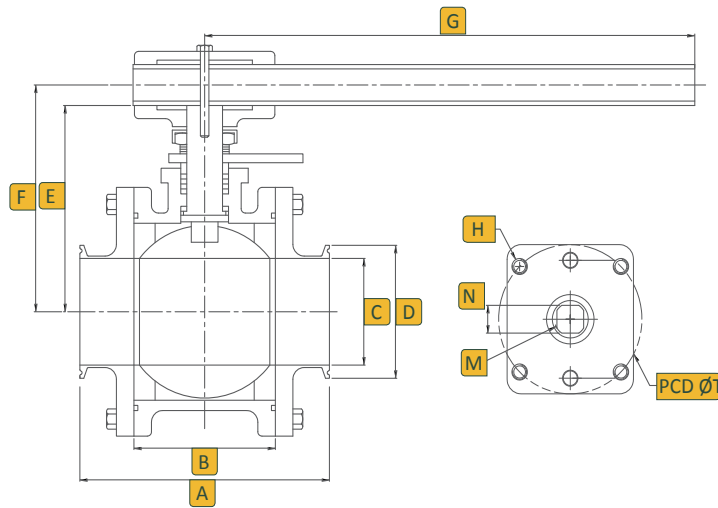
## Dimensions 1/2" - 2"



**2 1/2"**



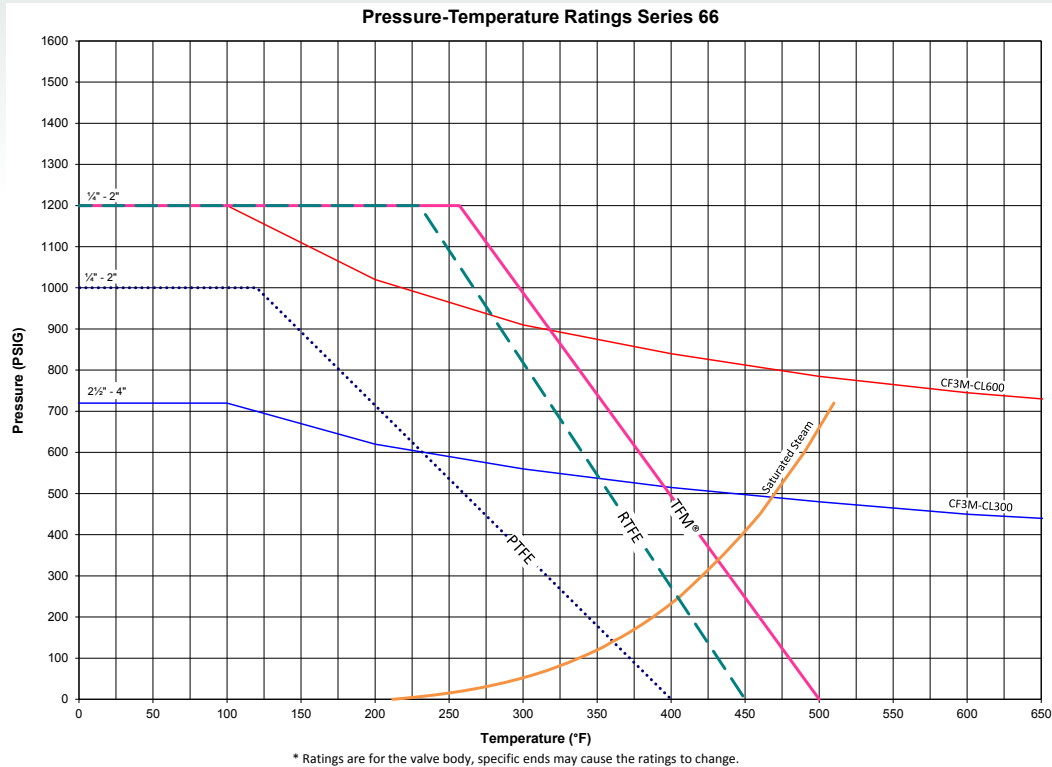
**3" & 4"**



Size	A	B	C	D	E	F	G	H	T	N	M	I	J
1/2	3.50	0.97	0.37	0.98	1.64	2.23	4.50	M5	1.42	0.22	3/8 - 24	-	-
3/4	4.00	1.05	0.62	0.98	1.69	2.28	4.50	M5	1.42	0.22	3/8 - 24	-	-
1	4.50	1.54	0.87	1.98	2.36	2.84	5.79	M5	1.65	0.30	7/16 - 20	-	-
1-1/2	5.50	2.13	1.37	1.98	3.06	3.33	6.78	M6	1.97	0.35	9/16 - 18	-	-
2	6.25	2.66	1.87	2.52	3.43	3.68	6.78	M6	1.97	0.35	9/16 - 18	-	-
2-1/2	6.75	3.20	2.37	3.34	4.87	5.98	8.74	M8	2.76	0.55	M20 x P2.0	1.95	2.76
3	6.75	3.96	2.87	5.50	6.54	6.52	13.80	M10	4.02	0.75	1 - 14	-	-
4	8.25	4.73	3.83	6.97	7.13	7.05	13.80	M10	4.02	0.75	1 - 14	-	-

The dimensions above are for informational purpose only. Please refer to Sharpe® Valves if you need dimensions for construction.

# Technical Information



## Approx. Weight (Lbs.)

SIZE	TRI CLAMP END	EXTENDED BUTT WELD END	SHORT BUTT WELD
1/4"		1.50	1.40
3/8"		1.50	1.40
1/2"		1.50	1.40
3/4"		2.00	1.85
1"		3.90	3.60
1 1/4"		6.00	5.70
1 1/2"		7.50	7.30
2"		12.10	11.70
2 1/2"		20.80	20.00
3"		32.70	30.80
4"		47.50	45.00

SIZE	C <sub>v</sub>
1/4"	1.5
3/8"	3.2
1/2"	8.1
3/4"	28.6
1"	67
1 1/4"	110
1 1/2"	192
2"	434
2 1/2"	779
3"	1123
4"	2054

## How to Order

Fig: 2 - 66 - 6 - 6 - R - T - CE

Size	Series	Body & Ends	Ball & Stem	Seat	Seal	Ends	Options
1/2	66	6 316L Stainless Steel	6 316L Stainless Steel	R RTFE	T PTFE	CE Clamp 180 Grit	X Oxygen Clean*
3/4				T PTFE	M TFM®	BE Butt-weld Tube, Short 18-24 Ra (180 Grit)	SF Silicone Free*
1				M TFM®		BTE Butt-weld Tube Extended 18-24 Ra (180 Grit)	OH Oval Handle*
1-1/2				C Cavity Filler - PTFE			
2							
2-1/2							
3							
4							

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Due to continuous development of our product range, we reserve the right to change the dimensions and information for this product as required.